

IN THE CLAIMS

Claims 1-21 (Canceled)

22. (New) An orthogonal frequency division multiplex (OFDM) telecommunication device comprising:

an OFDM receiver having a number of analog devices for performing an RF/IF down-conversion multiplication step and convolution step;

an OFDM transmitter having a number of analog devices that execute an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing an inverse Fourier transformation for modulation; and

an OFDM transceiver having a number of analog devices that execute an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing an inverse Fourier transformation for modulation and execute an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing a Fourier transformation for demodulation.

23. (New) The OFDM telecommunication device according to claim 22, wherein the number of analog devices in said OFDM transmitter performs an IF/RF up-conversion.

24. (New) The OFDM telecommunication device according to claim 22, wherein the number of analog devices in said OFDM transceiver performs an IF/RF up-conversion.

25. (New) The OFDM telecommunication device according to claim 22,
wherein said OFDM transmitter is configured for use in a wireless LAN.

26. (New) The OFDM telecommunication device according to claim 22,
wherein said OFDM transceiver is configured for use in a wireless LAN.

27. (New) The OFDM telecommunication device according to claim 22,
wherein said OFDM transceiver is configured for use as a DAB transceiver.

28. (New) The OFDM telecommunication device according to claim 22,
wherein said OFDM transceiver is configured for use as a DVB-T transceiver.

29. (New) The OFDM telecommunication device according to claim 22,
wherein said OFDM receiver is configured for use as a DAB receiver.

30. (New) The OFDM telecommunication device according to claim 22,
wherein said OFDM receiver is configured for use as a DVB-T receiver.

31. (New) A signal processing method suitable for use in an orthogonal
frequency division multiplex (OFDM) telecommunication device, said signal processing method
comprising the steps of:

receiving a signal;

performing an RF/IF down-conversion multiplication step and convolution step on said signal;

modulating said signal by executing an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing an inverse Fourier transformation on said signal; and

demodulating said signal by executing an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing a Fourier transformation on said signal.

32. The method according to claim 31, further comprising the step of performing an IF/RF up-conversion.

33. (New) An OFDM transceiver having a number of analog devices that execute an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing an inverse Fourier transformation for modulation and execute an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing a Fourier transformation for demodulation.

34. (New) The OFDM transceiver according to claim 33, wherein said number of analog devices performs an IF/RF up-conversion.

35. (New) The OFDM transceiver according to claim 33, wherein said OFDM transceiver is configured for use in a wireless LAN.

36. (New) The OFDM transceiver according to claim 33, wherein said OFDM transceiver is configured for use as a DAB transceiver.

37. (New) The OFDM transceiver according to claim 33, wherein said OFDM transceiver is configured for use as a DVB-T transceiver.

38. (New) A signal processing method suitable for use in an orthogonal frequency division multiplex (OFDM) transceiver, said signal processing method comprising the steps of:

receiving a signal;

modulating said signal by executing an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing an inverse Fourier transformation on said signal; and

demodulating said signal by executing an analog multiplication step and a convolution step of a multiplication-convolution-multiplication algorithm for performing a Fourier transformation on said signal.

39. (New) The method according to claim 38, further comprising the step of performing an IF/RF up-conversion.